GRUMMAN plane news

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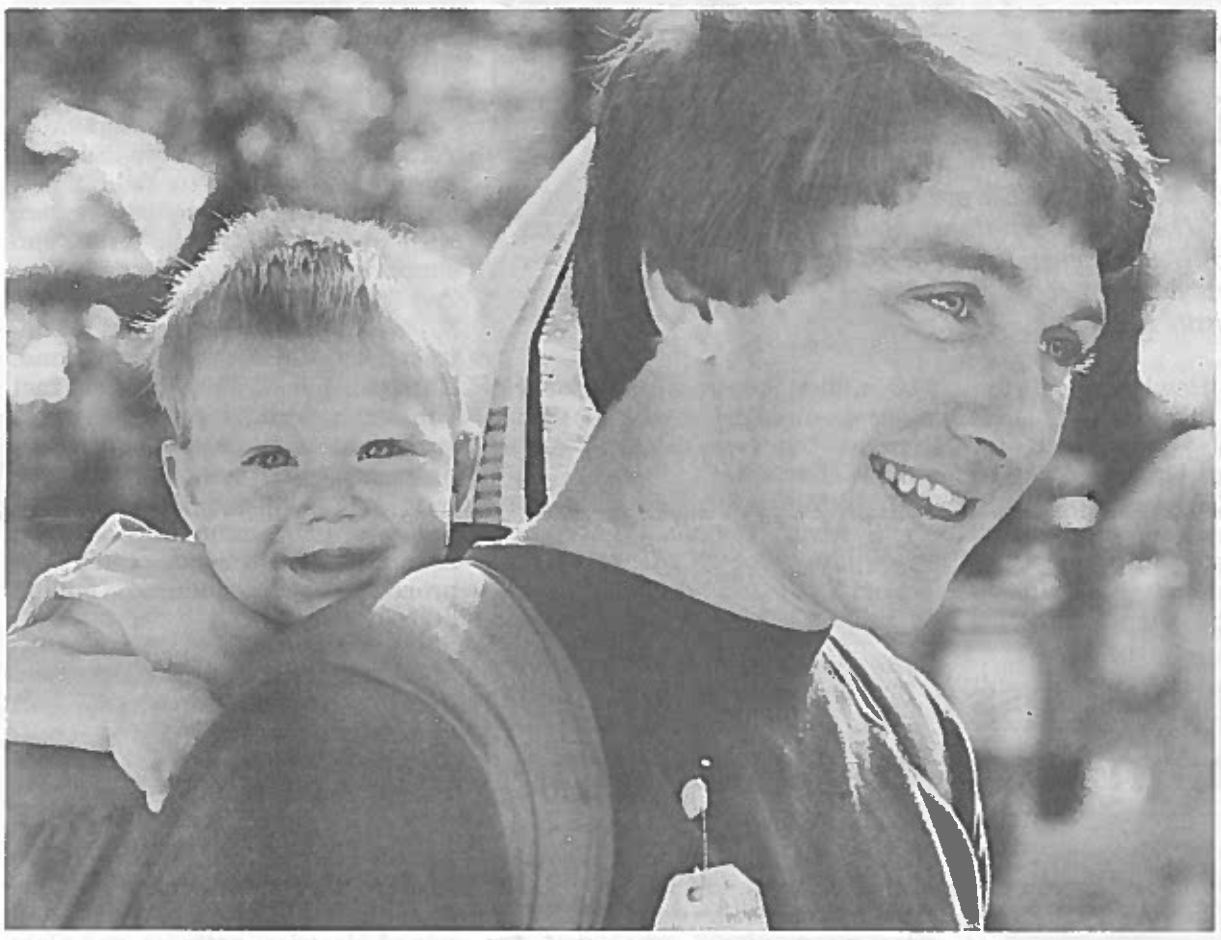
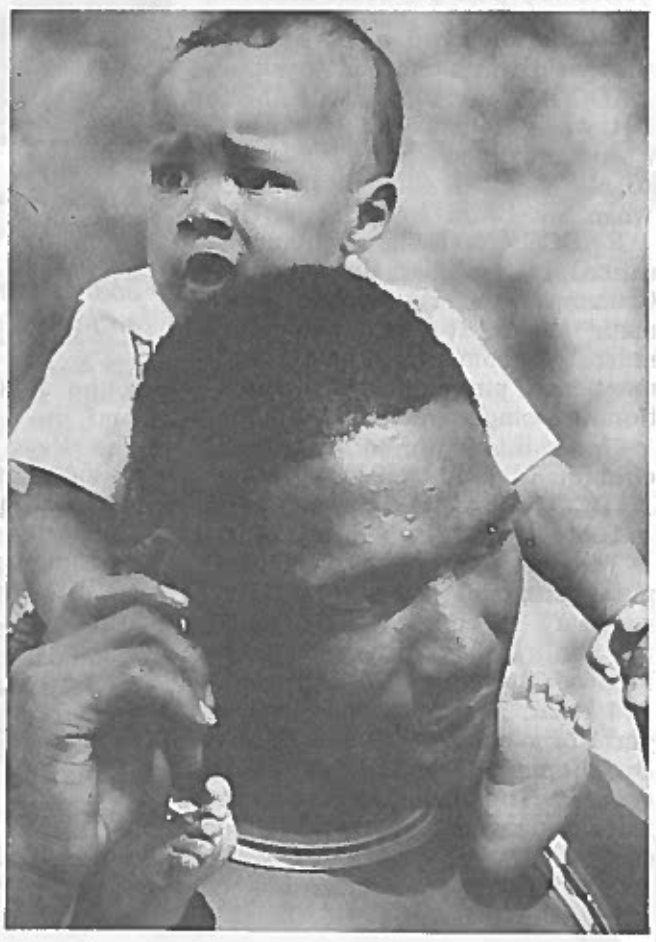




Let's face it. . .

Grumman family picnic is tough to beat

-pg. 6

In the marketplace

New orders for ATE total over $35 million

Business is booming at ATE Systems in Plant 31. Over the last two months, Grumman Aerospace won six contracts for automatic test equipment totalling over $35 million.

Included in those six are a number of firsts, reports ATE Systems head Ed Stroud. Grumman won its first independent Air Force and Army contracts for ATE, and the first sale of RADCOM testers for use with a non-Grumman product.

'Extremely pleased'

"We always had a lot of hope that we'd win a contract to supply RADCOMs for the IBM LAMPS, but when it happened it was still a surprise," says Stroud. "Needless to say we were extremely pleased when we heard we had won it."

RADCOM (Radar Communication) is the latest in a line of Grumman-built computerized automatic testers. It can test complex radar and communications equipment and pinpoint any malfunctioning components.

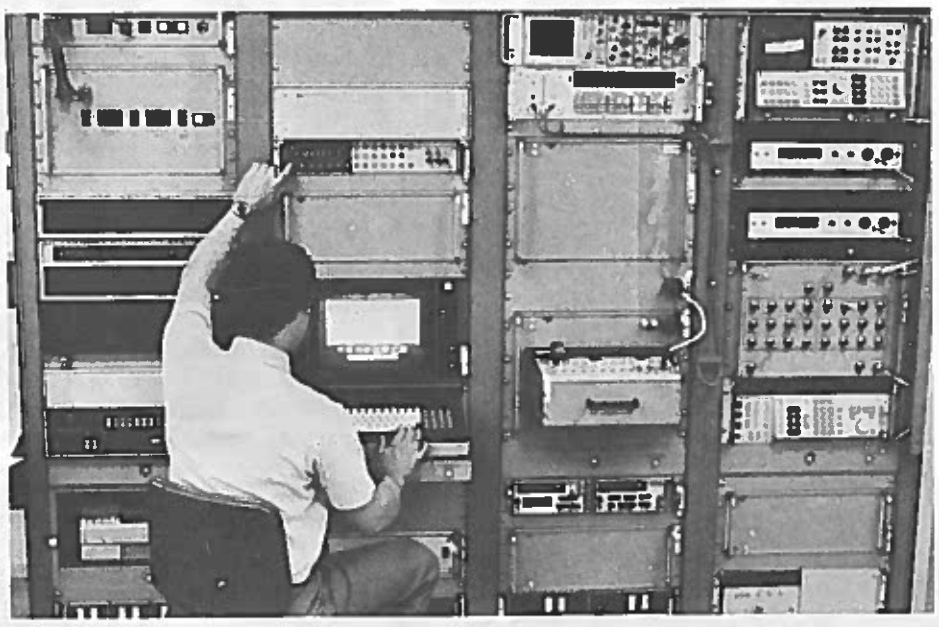
Under this $15 million contract, Grumman will deliver eight RADCOMs and test program sets to IBM.

The test program sets are computer programs and the hardware necessary to connect a RADCOM to the Light Airborne Multi-Purpose System's (LAMPS) APS-124 radar. This radar is an integral part of the helicopter-based LAMPS anti-submarine, anti-cruise missile system. The helicopters operate from destroyers, cruisers and other ships.

The LAMPS program is only the third to use RADCOMs. The first was the E-2C Hawkeye and the second, the A-6 Intruder.

The Navy also contracted for more of another Grumman tester, the CAT-IIID. These computerized automatic testers are used on all Grumman aircraft and other planes as well. Grumman has already delivered 60 of them, but this $10 million contract calls for the greatest number of testers ATE Systems has ever delivered under a single contract.

In addition, the Naval Electronics Systems Command exercised an option for Signal Analyzer Tester spares, a contract worth $4 million. The Navy also made a $1.35 million purchase of 15 Digital Word Processors. Both of these are instruments that Grumman builds in Great River for its own automatic testers or sells as individual components for other companies' testers. The processors will be used in Harris PRD's hybrid test station.



Check it out. *Dan Ritt checks out a RADCOM computerized automatic tester. The first operational RADCOM was delivered last October — to NAS Miramar for the E-2C program — and already it's adding a third program to its list of users: IBM's LAMPS anti-sub, anti-cruise missile system.*

For a Minuteman

Another first in this group of contracts is an award from the Air Force's San Antonio Air Logistics Center. The Center awarded Grumman a $2.3 million contract to develop a tester to check out guidance system circuit boards on the Minuteman II and III missiles.

The Army awarded contracts to Boeing, Emerson, General Dynamics, Grumman and RCA to define the next generation standardized tester.

The Army program, known as ATSS (Automatic Test Support System), is aiming to field a new generation of equipment to replace their obsolete automatic testers and support all future Army weapons systems.

"We've never had an ATE contract from the Army," says Stroud. Though the $730,000 contract Grumman won is small, it could grow into a major test equipment program if the company wins the next phase award. The value of the eventual production contract, according to Stroud, could approach several hundred million dollars.

GROwing business

Grumman wins high volume electronics job

If you want to talk commercial electronics, you ought to have the word "volume" in your vocabulary.

The Grummanites in Plants 43 and 44 in Great River are saying just that word: they are going to be assembling some 200,000 circuit boards under a $6.6 million contract awarded to Grumman by Eagle Telephonics.

Eagle, a Plainview, Long Island Company, installs business telephone systems. Recently, however, it also became a telephone manufacturer. Eagle is producing its own electronic business telephone system design, one geared for both large and small companies. According to Bruno Caputo, vice president-Great River Operations, Grumman will be making four different circuit boards for the new Eagle system under an 18-month contract.

"We've never gone after a contract calling for production rates of this magnitude," says Caputo.

At peak production, Grummanites will be punching out 1,300 circuit boards a day. The first production pieces are slated for delivery in April of next year.

This high rate is possible because of a new, nearly $2 million automated printed circuit board production line being installed in Plant 43. This line will take pre-punched insulated boards, which already have a conductive material deposited on them in predetermined electrical patterns, and place components into the proper holes.

"We had planned to install the line in Great River in 1984," Caputo explains, "But when we won the Eagle contract we simply accelerated our plans."

Free catalog lists bestsellers

Every year, the U.S.A. publishes a lot of good books. And for almost a century, the U.S. Government Printing Office has been selling these books to the public. Now there's a book that tells you about the government's "bestsellers" — but it's not for sale . . . . . it's free.

The new catalog lists about 1,000 of the GPO's most popular books . . . . . *Infant Care*, *The Space Shuttle at Work*, *How to Select a Nursing Home*, *Voyager at Saturn* and *Cutting Energy*, to name a few.

To find out about GPO's best sellers, send for a free copy of the catalog. Write: New Catalog, P.O. Box 37000, Washington, D.C. 20013.

Gone fishin'

Summer vacations are on tap for the *Plane News* staff. There will be no issue published August 19th; the next edition of *Plane News* will hit the stands on Friday, September 9.

During our summer break, we will be moving to a new office located just outside the Plant 5 Executive Lobby. It's a little brick building that used to be the flight ready room for pilots decades ago. Our new mailstop is C14-05.

Even though staff members will be taking their vacations this month, there will always be a person manning the phones. If you have any story ideas for *Plane News*, don't hesitate to call Ext. 3293.

Have a great summer!

On the boards. *The fifth generation of the Grumman EA-6B is now on the drawing boards. Litton was recently awarded a contract to update the tactical jamming subsystems.*

Litton chosen to update EA-6B jammer subsystems

To meet ever-changing threats in the electronic warfare theater, development work is currently underway for the fifth generation of the Grumman EA-6B Prowler family: the Advanced Capability (ADVCAP) series.

Grumman recently chose the Litton-Amecom led team for full scale engineering development of the Receiver/Processor Group (RPG) — a combination of subsystems for the AN/ALQ-99 tactical jamming system for the Prowler ADVCAP series.

In 1982, the Naval Air Systems Command (NAVAIR) gave Grumman the responsibility to conduct the RPG competition, select the winner and act as program integrator.

"We chose the Litton team over teams from AIL and Teledyne Systems," says Bob Scholly, EA-6B deputy director. "The contract is currently being negotiated and we expect full turn-on this month."

The Litton team includes ITT and Texas Instruments.

Future threats

Since its fleet introduction in 1971, the EA-6B has undergone three major revisions. The electronic warfare field is constantly changing at a rapid pace and NAVAIR and Grumman are continually revising the EA-6B system — not only to meet the present threat but to anticipate future threats.

"The ADVCAP series, now on the drawing boards, will meet those threats in the 1990s," says Scholly. In addition to the new tactical jamming system, the ADVCAP Prowler will feature an advanced high power transmitter and the ALQ-149, an advanced communications jammer. All three systems (which are subcontracted) are unique to the EA-6B.

The fifth generation of Prowlers is also slated to receive JTIDS (Joint Tactical Information Distribution System), a communication data link system; and GPS (Global Positioning System), a satellite-based navigation system for land, sea and air.

GRUMMAN plane news

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Shareholders approve two-for-one stock split

BETHPAGE, N.Y., July 21, 1983 — A two-for-one split of Grumman's common stock was approved at a special meeting of shareholders held in Plant 28A today.

Shareholders voted to amend the company's charter to increase the number of authorized shares of common stock from 30 million to 80 million and authorize the two-for-one split. Prior to the charter amendment, Grumman had about 17 million shares listed on the New York Stock Exchange, of which approximately 14 million shares were outstanding.

Many voted, but few attended

All but a handful of shareholders decided to mail in their proxy cards instead of attending the special meeting. Voting results were: 10,704,744 shares for, 63,560 shares against, and 16,681 shares abstaining.

The approved amendment becomes effective when it is accepted by the Secretary of the State of New York. That acceptance is expected on or about August 1, 1983. Shareholders of record on that date will be entitled to receive stock certificates representing one additional share for each share then held. Grumman expects to mail the new certificates about August 19.

If you own a piece of Grumman through the Employee Investment Plan, you will see the result of the two-for-one split in the EIP third quarter report.

At a regular board meeting held before the shareholders' special meeting, Grumman's directors declared a dividend increase to 45 cents per share on common stock, equivalent to 22.5 cents per share on the new split shares. The dividend had been 40 cents per share.

The dividend will be payable August 19, 1983 to holders of record on August 1, 1983.

The board of directors also declared a dividend of 70 cents per share on the company's $2.80 preferred stock payable August 15, 1983 to holders of record on August 5, 1983.

retirees

On behalf of our fellow workers, PLANE NEWS salutes the following men and women for their contributions to the company and wishes them well in their retirement. Those who retire in August are:

Charles Blazeyewski (2), Howard E. Brockway (6), Elbert S. Matthews Jr. (6), Oscar L. Nelson Jr. (14), Philip E. Keiper (6), John Uraga (2), Thomas Burns (20), Marie H. Ludwig (111), Donald L. Swezey (2), Frank A. Joanides (6), Walter J. Stauber (77), Richard E. Barton (77), Philip Kiburis (40), William M. Blind (1), John H. Walbroehl (3), Kurt Wassermann (15), Margaret Liess (1), Agnes J. Purcell (2), Bernard J. Sheehan (57), William R. Eadie (3), Joseph LaRocca (39), Wilmur M. McCown (30), Eugene J. Manalili (6), John Talko Jr. (1), Dante A. Sebastiano (40), Louis H. Shellard (2), Robert H. Hodge (6), Michael Suspenski (6).

Luncheon is served. *The supervisory staff of Plant 66 threw its own 'Employee Appreciation' luncheon recently. Milledgeville Operations Vice President Bill Zarkowsky, with help from (R to L) John Noack, Bill Richter, Norm Daubert and Tom Main, among others, serves Terry Duke, Pat McArdle, Vunion Tanner and John Stanley. They dished out sausage, salad, corn-on-the-cob and eclairs to diners on the day and night shifts, and breakfast to the midnight shift.*

people

Musical note

"Before We Let it Go" and "Love Saved the Best for Last" are two new songs you may soon be listening to on your favorite Country & Western radio station.

The lyrics to both were written by Terri Reid, an executive secretary for Program Management at Plant 77 in Stewart, Fla. In collaboration with composer Don Hecht, she recently sent her first demonstration tape to a record company in Florida. Hecht wrote several of the songs

Terri Reid

for the movie "Coal Miner's Daughter" as well as the popular C & W oldie, "I Go Out Walking After Midnight".

The team came together more than a year ago when Terri was taking a creative writing class. During the course, she read an article Hecht had written on writing music.

"I liked what he had to say, so I decided to send him some of my lyrics," Terri recalls. Apparently Hecht liked what *she* had to say, because soon after he called with a proposal that they collaborate and make a tape.

Although this is her first attempt to enter the recording business, Terri has sold lyrics before. *Shenanigans* singing telegram service recently bought 20 of her "ditties" (original words put to familiar tunes) and is currently using them. She has also written lyrics for her two musician-children when they were in high school. Both are married now and one is a professional musician.

No news has been received about the four-song tape yet, which was sent in a few months ago. But as Terri explained, two or three months is not such a long time in the music business, which tends to move slowly. "I've spoken to people who have waited two years before signing a contract," she says.

Although she's never thought about comparing her work to that of any established recording stars, she described her songs as being love songs and said that several women have gotten "misty-eyed" while listening to them. "I just hope they affect some record producer in the same way," she says.

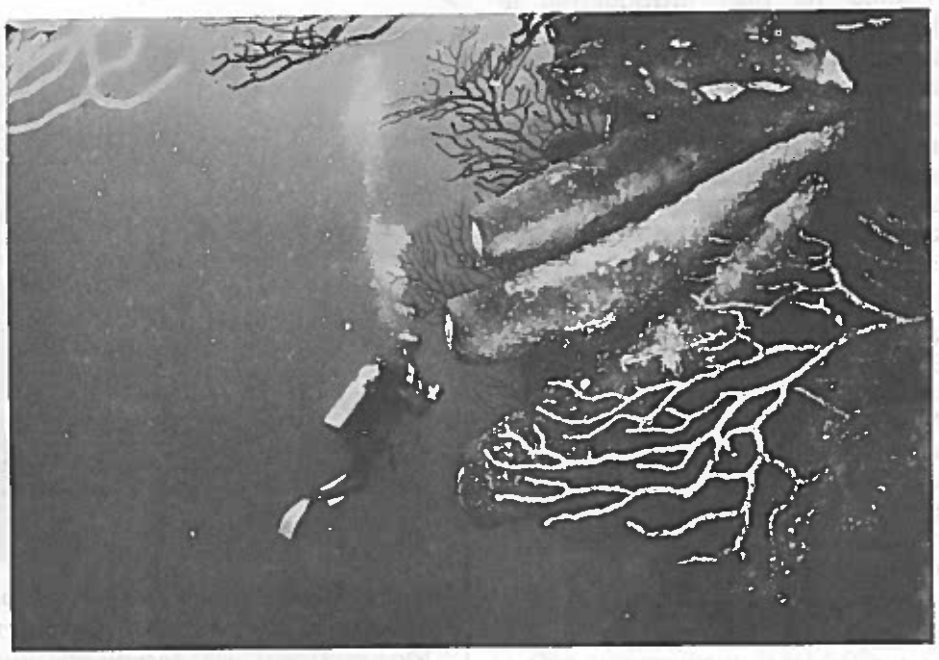
Underwater snapshots

When Chuck Sewell, Grumman's chief test pilot, is not flying high above the earth's surface, chances are he's diving a mile below it. A long time deep sea diver and explorer, Chuck has incidentally become a prominent underwater photographer.

For six of the past seven years, the Grumman Scuba Club has awarded him its highest award for underwater slides taken more than 500 miles away (from Long Island). Chuck mostly dives in the Caribbean Sea and the waters off the California coast, but has also done some exploring in the Red Sea and other parts of the world.

In the past three months, he has won first place prizes in such national contests as *Dive to Adventure*, held in New York, and *Sea Space '83*, which was judged in Houston, Texas. He also recently won an international contest called *Sea '83*, for a slide he calls "Harmony" which he took in the Red Sea.

While he essentially dives to explore, Chuck says he began photographing underwater because he could not properly articulate to people the things he saw. "You'd have to be a poet to describe how beautiful it is down there", he says. Judging from his success, a picture *is* worth a thousand words.



Look at the birdie. *Chuck Sewell's slide of 'Large Sponges and Diver' won 1st prize from the Grumman Scuba Club. Taken at Little Cayman Island, diver is John Denver of 'Rocky Mountain High' fame.*

The written word

Grummanite Robert Noelsch has been honored by the Faculty Student Association of SUNY at Stony Brook for his contributions to the quality of campus life. This recognition was in appreciation for his efforts and leadership in reviving the "Stony Brook Engineer" (Journal of the College of Engineering and Applied Math) and serving as its editor.

Editor's note. *Grummanite Robert Noelsch is congratulated by Stony Brook University President John Marburger (R) for his work on the 'Stony Brook Engineer' Journal.*

Noelsch, an assistant engineer in Electronic Design and Development in Plant 14, received his award from University President John Marburger at the FSA Awards Dinner recently.

Summer lecturers

This past July, Grummanites George Frankel and Russell Goss went to summer school — not to learn, but to share their knowledge with Long Island high school students.

Frankel and Goss were guest lecturers at Nassau's Technical-Education Exploratory Institute, a summer program sponsored by BOCES (Board of Cooperative Educational Services) of Nassau County. Students in the eighth, ninth, and 10th grades with the approval of their high school principals attended the four-day-a-week program throughout the month of July.

The participants had the opportunity to explore various technologies, sciences and associated fields. Frankel, assistant director of Environmental Planning and Control; and Goss, Loads and Dynamics senior engineer, spoke about noise abatement in industry.

During their hour-and-a-half session with the students, the Grummanites explained the effects of noise on the workplace and how industry deals with it. "We broke up the session with 'hands-on' segments to keep their attention," says Frankel. "After a brief lecture, we split the group and had the students try out an oscilloscope (used to show noise amplitude and frequency) and work with a sound level meter spectrum analyzer (a unit that measures noise decibels and frequency)."

As in most classrooms, there was a mix of real go-getters and rather shy kids. "We tried to get all the students involved," says Goss. "We even succeeded in getting the shyer ones to try out the equipment."

Frankel and Goss ended each session with a brief summary of what kind of jobs are available in the industrial noise abatement field. Both Grummanites are pleased with their performance and admit that it was a learning experience for them, too.

"My wife is a teacher and I found out quickly what she goes through during the school year," says Frankel. "I think we did a pretty good job of reaching the kids."

Construction begins on new Pl. 14 addition

While misgivings about higher Long Island energy costs are delaying some of Grumman's construction plans, they are not holding up one critical major project.

That project is the expansion of the Plant 14 Engineering Development Center that will house E-2C development work as well as electronic systems work now going on in Plant 14.

Double the size

Ground was broken on July 20 on the north side of Plant 14 for this $10 million structure. "The complete expansion will roughly double the size of our present facility and allow us to expand all areas of our operation," says Chris Witt, director of the Engineering Development Center.

Two distinct units

The three-story building will house two distinct units: the Electronic Systems Programs (ESP) area and the new E-2C Systems Engineering and Software Facility.

ESP will be a modern laboratory facility. Within its walls, Grummanites will work on projects such as simulation, crew station technology, the development of advanced computer chips and circuits, and development of software (computer programs) for microprocessors, which are tiny computers with no memory. All the labs will be connected by a computer network.

Super convenient

But, says Witt, perhaps the most important aspect of the building is its convenience. It was designed to a theme: "Technical task convenience and professional accommodation." There will be no more long walks through the halls of Plant 14 just to change a resistor or modify a computer program.

The ESP will be completed after the E-2 facility, which will be ready for occupancy by June 1 of next year. All design and development work on the Grumman E-2C Hawkeye's airborne-early-warning electronics systems will be performed in the new building.

Room to grow

"The E-2C Program is growing dramatically in such areas as foreign military sales efforts, fleet modifications, systems updates and advanced development efforts," says Program Director Jim Philbin. "These improvements will take advantage of new technologies as well as meet the changing threat. And a major increase in our workload will occur when Eqypt and Singapore sign contracts this year."

Something for everyone

Foreign nationals, for example, will have work spaces available in laboratories on the third floor of the new building. Each lab can be configured for the particular needs of the country using it. And each of the labs will have separate communications networks and antennas. In fact, not only will these labs be isolated from each other, they'll be physically and electronically isolated from the work going on in the rest of the building.

According to Dan Crowley, an engineering specialist with Systems Engineering, the new structure will be under tight security. Access to the first two floors will be strictly limited; everyone working there will have a secret, or higher, clearance. Those working on the third floor will have a separate entrance.

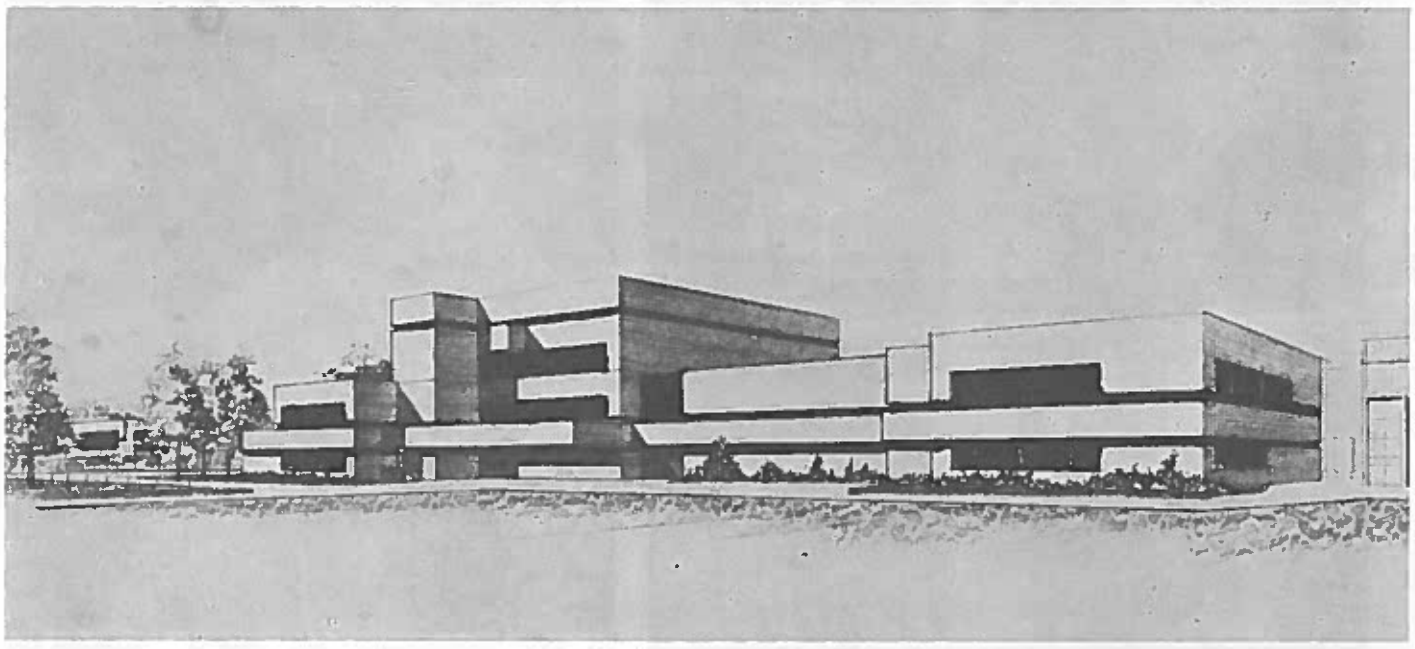
Development work the the U.S. Navy's E-2C Hawkeye will be performed in the main labs on the first two floors. "It will be one huge computer network," says Crowley.

Hawkeye without wings

All interrelated E-2C development labs will be located physically close to each other — just like in real Hawkeye aircraft. That way engineers will be able to design new airborne-early-warning systems as if they were right in an E-2C aircraft.

Close proximity to each lab is important. The computer knows how long it takes (measured in tiny fractions of a second) for a signal to travel from the radar system through the computer and onto the combat information center's operator consoles in the main body of an E-2C. If the cables carrying these signals are too long, it would take too long (in the computer's way of thinking) for the information to get around.

However, the people working inside this think tank won't feel like they are working inside a huge computer. There will be plenty of windows in the new three-story structure. The sun will shine in, while the information it holds will be safe from outside eyes.



View from a brush. *Using the artist's eyes to look into the future, the expansion of the Plant 14 Engineering Development Center will be seen this way when completed. The E-2C Systems Engineering and Software Facility is on the left and the Electronic Systems Facility is on the right. The present Plant 14 would be behind the expansion in this view.*

New 'Cougars' join the Prowler family

The U.S. Navy recently expanded its electronic warfare force by forming a new EA-6B squadron at NAS Whidbey Island in Washington.

Tactical Electronic Warfare Squadron (VAQ) 139 — the Navy's 10th VAQ or jammer squadron — officially "stood up" (became operational) at an "establishment" ceremony on July 1. The new squadron is nicknamed "The Cougars."

As reported in the June 1983 issue of *Whidbey Island News Times*, "The Navy's goal, said Cougar Executive Officer Cdr. Bob Dilks, is to have a jammer squadron for every operational aircraft carrier.

"The Navy has 14 carriers, 12 of which are operational, Dilks said. VAQ squadrons numbers 12 and 13 will be established in 1986 and 1987 . . . .

"At any time, Dilks said, four carriers are deployed, four are involved in deployment preparation called 'work-ups' and four are 'standing down,' in port or dry-dock.

"And there just aren't enough jammer squadrons to go around, he added."

A typical jammer squadron has four EA-6B Prowlers. Whidbey Island is the only place where the Navy home-ports Prowlers.

Proud cat. *The Navy's newest EA-6B squadron is called The Cougars. Tactical Electronic Warfare Squadron (VAQ) 139 officially became the Navy's 10th jammer squadron on July 1.*

Greetings. *Grumman Corp. President Joe Gavin and his wife Dorothy chat with young picnickers.*

A picture perfect picnic

The Grumman Family Picnic is a day for families, and this year, no family could have asked for a more perfect day.

Some 18,000 Grummanites and their families flocked to the spacious Calverton picnic grounds for the 42nd annual picnic held this year on Saturday, July 23. "Once again, we've been blessed with a great picnic day," Grumman Aerospace President George Skurla told attendees. "I don't think you could ask for a better day."

Grumman Corporation Chairman Jack Bierwirth and Grumman Corporation President Joe Gavin also welcomed fellow members of the Grumman clan to the picnic.

The traditional good times at the annual family event start early for many picnickers. The Davis family was the first group to set up camp for the day.

"I got off work around 12:30 this morning," said Reggie Jr. as he and his father set up the barbeque grill. "Then I got up at 4:30 and we left the house about six so we could get here in time to pick the best spot." The Davis' spot was a shady one, and close to their car.

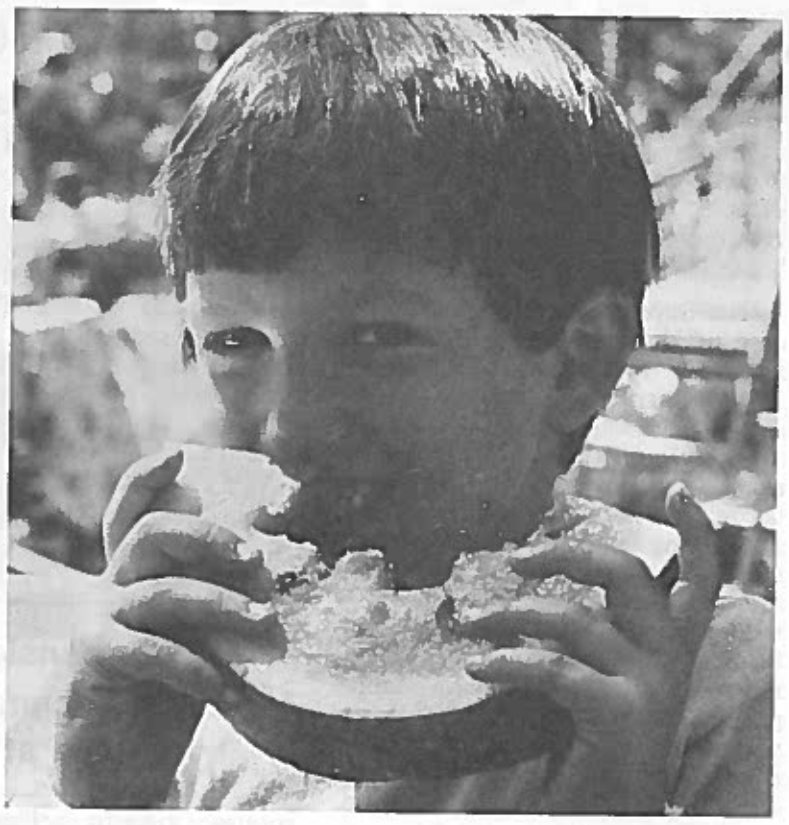
While Reggie and his family prepared breakfast, his brother Jeffrey worked to get the Bethpage-Calverton train ride ready for its passengers later in the day.

Jeffrey Davis was just one of a number of Grummanites who spent their day giving kids rides, cooking hot dogs, tapping kegs of beer, serving ice cream, soda and milk, and doing all the things required to make July 23rd a super day.

"The cooperation you get running this picnic

Pre-game warm-up. *Grumman Corp. Chairman Jack Bierwirth exchanges gifts with Takefumi Okada (L), chairman of the Tokyo-N.Y. Nanshiki Baseball Friendship Series Committee and its president, Mico Delianova Licastro.*

All aboard. *Under the experienced eye of Grumman Aerospace President George Skurla, board member John Sargent guides the kiddie locomotive down the track.*



is unbelievable" said Chet Baumgartner, Employee Services director.

At one o'clock, Grumman picnickers gathered in front of the bandstand for the traditional entertainment show. The audience was not disappointed. Bobby Carrol, "the world's fastest banjo player," dazzled them. The Russian Wolfhounds and Pomeranians of Sims animal act wowed them. And former Ringling Brothers' clown Mark Stolzenberg kept them rolling in the grass.

Foot tapping

Throughout most of the day, the Grumman Employees Band supplied music, and when they did take a break, a deejay got the kids rocking.

In the afternoon, there was a special treat for baseball buffs. A team of 11- and 12-year-old all-star Little Leaguers from Tokyo played an exhibition game. Their opponents: stars from the Levittown/Island Trees area who proudly wore their new Grumman jerseys.

If baseball or dancing wasn't your fancy, there was plenty of other action in all corners of the Calverton grounds.

John Sargent, a member of the Grumman Corporation board of directors, attended his first Grumman picnic and had the opportunity to become a railroad engineer. Under the experienced eye of Skurla, Sargent took the controls of the kiddie ride's locomotive. "It's terrific driving that train! A big moment for me," he exclaimed after a couple of loops around the track.

Meanwhile, the energetic set tried their skills in wheelbarrow races, egg-throwing contests, and the like.

Skurla pointed to some young boys waiting excitedly for the start of their race. "The kids of today are the Grumman employees of tomorrow and they will remember the good times they had here as youngsters."

Maureen Mallino remembers. She's hardly missed a picnic since her father, Vinnie Corrado of Plant 40, started working at Grumman 20 years ago. "I enjoy coming here," said Maureen, as she cooked breakfast for her two children and her husband Joe who works in Plant 1. "It's nice for the kids, especially when they're young."

"I've been coming to the picnic since my kids were tiny," said Loretta Koch of Food Services as she waited for her grandchildren to finish their ride. "The picnic is the greatest thing on earth."

Pension Plan not affected by Supreme Court ruling

Before it ended its 1982-83 term in early July, the U.S. Supreme Court banned employers from offering retirement plans that provide men and women with unequal benefits.

The Supreme Court ruled on the case of Nathalie Norris vs. Lincoln National Life Insurance Co. In 1975, Norris, who works for the state of Arizona, signed up to make monthly contributions for an annuity plan offered by the state through the insurance company. Later, she learned that at retirement age she would receive $34 a month less than a male employee who had made identical contributions. The insurance company reasoned that its actuarial tables project that as a woman Norris would live seven years longer than a man of the same age. Norris challenged the practice and won.

'No direct affect'

The Supreme Court's ruling directly applies only to employer-sponsored annuity plans. "It has no direct affect on the Grumman Pension Plan," says Bob Bradshaw, Grumman Corporation Vice President and Secretary.

"The Court's ruling relates only to defined contribution plans where the employees contribute. In Grumman's case, no contribution to the Pension Plan is required; Grumman's Pension Plan is a defined benefit plan," states Bradshaw.

He also emphasizes that "Since its inception, the Plan has never discriminated between members on the basis of sex. The Pension Plan is sex-neutral." Bradshaw states that "your pension amount is determined by accumulated base earnings, age at retirement and years of membership in the Plan — not by your sex."

Bradshaw does point out that there had been one sex distinction in the Plan relating to the surviving spouse benefit. The company changed that as of August 1, 1983.

When you decide to retire, you can select a full pension, or any one of several options that would provide lower monthly income for you but would, upon your death, continue payments to your surviving spouse.

Under the old rules, if a male employee chose to protect his surviving spouse, he and his wife would get lower pension benefits than a Grumman female and her husband of the same ages. "It is projected that women live longer than men," says Bradshaw. "The reduction for a male's pension benefit with the surviving spouse option would be greater than for a Grumman female opting to protect her male spouse.

"All pensions paid on or after August 1, 1983, however, will be computed with unisex tables to figure benefits with surviving spouse features," states Bradshaw. "Grumman is not required by law or regulation to do this, but it seems quite clear that this is the direction being taken by the courts. So rather than wait, the company decided to start using unisex tables."

'Your pension amount is determined by your accumulated base earnings, and your age at retirement — not by your sex'

Effectively, it will improve the situation that is most common at Grumman — the male employee with the surviving wife. On the other hand, using the unisex tables would have a negative effect on female Grummanites who choose the surviving spouse benefit for their husbands.

"The company has therefore 'grandmothered' the benefit to protect any promises that it already made," says Bradshaw. "We will never give less than what we promised. In those cases where the Grumman female's surviving spouse benefit as of July 31, 1983 is higher than the benefit which results by using the new unisex computation tables, we will use the old, higher number."

Free booklet on aqua exercises

The President's Council on Physical Fitness and Sports, in cooperation with the National Spa and Pool Institute (NSPI) is now offering a water exercise program designed to help employees better utilize backyard pools or public facilities as physical fitness centers.

The program, called "Aqua Dynamics," is designed to provide cardiovascular and muscular workouts by using a variety of water exercises, such as leg lifts, side benders and bobbing.

To obtain a free copy of the 32-page "Aqua Dynamics" booklet write to: Aqua Dynamics, The President's Council on Physical Fitness and Sports, Washington, D. C. 20001.

calendar

Aikido Club: (Martial Arts) every Wed., 5 p.m., Recreation bldg. Beginners class. Guests welcome. M. Brooks, Ext. 115-6171/H. Brondo, Ext. 2719

Alcoholics Anonymous: every Mon., 4:30 p.m., Pl. 15, conference room C, closed meetings; Personnel Relations, Ext. 3521, Great River meetings: every Wednesday, 4-5 p.m. T. Connolly, Ext. 3521, Calverton: Chemical Dependency Discussion Group, every Mon., 4-5 p.m., Guard Hdq.; open meeting. Personnel, 369-6759, C. Robb, Ext. 117-7038

Amateur Radio Club: every 3rd Wednesday of the month. Plant 5 conference room BD-1, 5 p.m. B. Wengler, Ext. 4187

Chess Club: every Fri., Recreation bldg., 5 to 11 p.m. Beginner-Expert, guests welcome. K. Marley, Ext. 4901/N. Corso, Ext. 9600

Coin Club: (Calverton) every Fri., noon lunch, Pl. 6, A-6 Action Center conference room. Grumman employees welcome. N. Evangelides, Ext. 117-7242

Computer Club: 1st and 3rd Mondays of every month, Recreation bldg., 5 p.m. Computer discussion and demonstration/beginner to advanced programming. Guests welcome. J. Hayne, Ext. 4945/P. Frumkin, Ext. 5134

Dance Club: every Wed., 5-8 p.m., Recreation bldg. Guests welcome. S. Koppell, Ext. 115-3800

Duplicate Bridge Club: every Thursday, Recreation bldg., 6 p.m. Guests welcome. P. Gill, Ext. 115-8414

Equestrian Club: every weeknight, Knoll Farm, Brentwood, 6 p.m. Grumman employees and immediate family only. J. Eisenhower, 115-6211

Fencing Club: every Wed., 4:30-6:30 p.m., Recreation bldg. Free instructions, guests welcome. J. Hayne, Ext. 4945/P. Chaldaris, Ext. 3486

Folk Dancer's Club: (Calverton) every Thurs., 2nd floor, Pl. 6, lunchtime, Grumman employees only. J. Hamelman, Ext. 117-6835

Karate Club: every Tues. and Thurs., Recreation bldg., beginners 4:30 to 5:30 p.m., advanced 5:30 to 7:00 p.m., black belt instructors, physical and mental development; guests welcome. T. Ortiz, Ext. 4555

Model Railroad Society: every Wed., 7 p.m., Recreation bldg. Regular meeting. Guests welcome. R. Muntz, Ext. 6865

Magic Club: last Wed., of every month, The Magic Shop, Mid-Island Plaza, Hicksville, 4:45 p.m., Guests welcome. G. Albright, Ext. 5782

Roller Skating Club: every Thurs., Levittown Skating Rink, 7:30 to 11 p.m. Lessons 6:30 to 7:30 p.m. Guests welcome. H. Denen, Ext. 2291

Stamp Club: First three Wed. of every month; 5-6 p.m., Pl. 35 cafeteria; trading sessions and discussions. S. Hoops, Ext. 3926

Table Tennis: every Thurs., Pl. 24, 5 p.m. and every Fri., Recreation bldg., 5 p.m., also every lunchtime. Beginners and guests welcome. B. Fabricant, Ext. 9307

Tap Dancing Club: every Mon., Recreation bldg., Beginners; 4:30 to 5:30, Intermediate; 5:30-6:30 p.m. Guests welcome. P. Tropea, Ext. 2260

Toastmaster Club: every Wed., Plant 30, first floor conference room, pole E3, 5-7 p.m. Grumman employees only. A. King, Ext. 6779

obituaries

JOSEPH FORGIE of Corporate Systems, Pl. 5, died July 7 at the age of 43. He had been with the company since 1972 and resided at 141 Greenbelt Lane, Levittown.

KENNETH ROGERS of Motivation Programs, Pl. 28, died July 11 at the age of 66. He had been with the company since 1968 and resided at 15 Charles Pl., Huntington Station.

Personals

I would like to extend my appreciation to my friends and co-workers for their concern and well wishes during my recent recuperation from surgery. Your thoughtfulness will always be remembered and appreciated. Dick Gehrt

We wish to thank all our friends for their sincere expression of sympathy during the recent loss of our mother. Carl Amato and Family

My family and I wish to thank our many friends at Grumman for their kindness and sympathy during the recent loss of our father, Duff. John Maynard

We wish to thank all our friends at Grumman for their expressions of sympathy upon the death of our father. Robert and Ingrid Anderson

The Kenyon family gratefully acknowledges the kind expressions of sympathy during the recent loss of our mother, Frances. Thank you all. Fred Kenyon

My family and I wish to thank our many Grumman friends for their kind expression of sympathy during the recent loss of my father. Wendell Bodden and Family

My family and I wish to express our deepest appreciation to everyone for their expressions of sympathy and kindness during the recent loss of my mother. Lou DeTurris and Family

I would like to thank all my Grumman friends for their concern and good wishes during my recent illness and surgery. Jacques Belle-Oudry

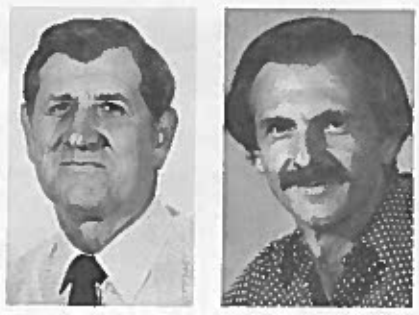
I want to thank all my Grumman friends for their expression of sympathy during the recent death of my father. Dom Gargiulo

●

Those Grummanites wishing to place a "Personal" in *Plane News* should mail their request to: *Plane News*, C14-05.

H. Degamon | O. Fiorio | A. Burk | P. Fugaro | R. Barton | D. Gray | A. Martinez | W. O'Connell | H. Sheridan Jr.

service milestones



J. Kiely | F. Hellwagner

45

Louis D. Spina, Wing Inner Panel Combo (2)
Leo Siemion, Prod. Release & Anal. (2)

40

Arthur P. Smith, Assy. Methods (1)
Norman M. Maier, Veh. Liaison Eng. (1)
Raymond Cornell, Cadmium Plate (2)
Howard J. Baldwin, Cromic Acid/ Anodize (3)

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James P. Kelley, ILS Tech. Dir. (1)
Anthony J. Renna Sr., Invent. Cntrl. (2)
Charles W. Cornell, Prod. Cntl-Parts Cntrl. (2)
Fred J. Kolb, Jigs & Fixtures (2)
Bergen K. Smith, Stockrooms (3)
Edward C. Richardson, Beth. Ops. Admin. (5)
John W. Coursen, Adv. Prog. Eng. Mgrs. (5)
Gerald D. Ryan, Market Plnng. & Res. (5)
Stephen Kiss Jr., Bus. Ops. M/S (5)
Herbert J. Raeth Jr., Warehouse (6)
John R. Hines, Config. Data Mgmt. (25)
Wilbur F. Schlosser, Supplier Cntrl. (30)
Harry J. DeMeo, PMM-MIL & Space (40)

30

George A. Beattie, Proj. Mgmt. (1)
Salvatore G. Rizzo, Qual. Eng. Prod. Supp. (1)
Angelo J. Caratozzolo, Q.C. Mech. Insp. (1)
Louis Muller, Clean & Descaling (2)
Henry A. Farrar, Compos. & Adhes. (2)
Anthony F. Ingoglia, R.C. M/S (2)
Junious L. Barbour Jr., Honeycomb Core Details (3)
Russell E. Player, Mgmt & Cntrl (3)
Levi E. Bloxsom, Elect. Test (4)
Arnord J. Cramer, Flt. Op/Gulf (O&R) (4)
John P. Christensen, Fin. Ops. (5)
Harry W. Schmidt, Corp. Instr. Ground Test (5)
Carl F. Winterstein, Struct. Sys. Prod. Supp. (6)
Vito Farinola, Cal. Ops. M/S (6)
John A. Kelly, Avionics Dev. (7)
Carmine L. Monaco, Flt. Ops. Insp. (7)
Henry J. Tremblay, Insp-Mach. Parts (24)
William E. Waters Jr., Repair Cntrl. (30)
William H. Foshay, Router & Shear (37)
John Tashie, Specifications (40)
Gordon S. Andersen, Mgmt & Control (56)
William H. Howard, Opt. Display Navig & Cnt. Staff (71)
Marvin Greenberg, Prog. Proc. Hydrofoil (563)

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Henry J. Degamon, PPO-F-14 (1)
Onofrio Florio, ILS Elec. Pack. (1)
Arthur J. Burk, Antennas & Radomes (1)
Robert J. Carlo, Prog. Mgmt-F-14A (1)
Peter J. Fugaro, Cap. Monit. & CT (2)
Richard O. Barton, Optical Tool. (2)
Daniel J. Gray, Jigs & Fixtures (2)
Albert Matinez, Prod. Cntl-Parts Cntl. (3)
William J. O'Connell Jr., I.E. Flow Sequence Plnng. (3)
Henry B. Sheridan Jr., Wood Shop (5)
William C. Tauby, Crew Sys/Equip. Integ. (5)
Thomas S. Ervolina, Prop. Sys. (5)
Frances M. Overcash, Fin. Op/Secretaries (5)
Paul Henton, Proposals (5)
Rudolph C. Meyer, Aerodyn. Staff (5)
Edwin G. Stiehle, Mgmt Ops Staff (5)
Joseph T. Ruggiero Jr., Corp. Plnng. Cntrl & Budg. (5)
Donald J. Kaley, Business Mgmt & Anal. (5)
Charles P. Cava, Plt. 14/26-Inst. M/S (6)
Michael Mastrogiacomo, Maint-Facil. Equip. & Gen. (6)
Francis X. Greenfield, Sys. Des. (7)
Murray Cohen, Controls & Mech. (25)
George Kipin, Veh. Struct. Anal. (25)
James E. Philbin, Prog. Manage E-2 (25)
John W. Wollstadt, Gen. Subcontracts (30)
Robert H. Mierzejewski, ILS Resource Cntrl. (30)
Donald J. Casey, Proj. Mgmt. (30)
Michael F. DeSanto, Document Process. (30)
Thomas H. Rothwell, ILS Eng. Mgmt. (31)
William P. Reis, Environ. Cntrl. Des. (35)
Charles W. Errig, Funct. & Proj. Admin. (35)
Joseph P. Kingfield, Ops. M/S (35)
Ronald H. Severa, Instruct/Anal. (39)
Donald M. Webber, Operations (40)
Frank M. Fonte, Specifications (40)
Barbara J. Stobie, Field Op Svcs-Other Plts. (40)
Ronald V. Takach, Prog. Contracts (43)
Arnold H. Pinker, Mech. Detail & Fin-Temp. (43)
Robert McKeever, EP Circ & Mod. Fab-Temp. (43)
Joseph C. Kiely, Stuart Tool Eng. (77)
Ernest Prodromides, GAC St. Augustine (265)
Frank J. Hellwagner, Prod. Cntrl. (43)

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John L. Schrink, Sub-Assy. (1)
Charles P. Heege, Maint-Rearrange. (1)
Bernard S. Fabricant, Optic & Display Equip. Des. (1)
Charles E. Mathis, Avionics Des. Proj. Mgt. (1)
Albert J. Kadlec, Parts Paint (2)
Joseph P. LoCicero, Prod. Superv. (2)
Albert Reddick Jr., Assy. Methods (2)
Marjorie A. Tangle, Assy. Methods (2)
George Andreani, Prod. Plnng. (2)
Ferdinand L. Santiago, Jigs & Fixtures (2)
Amadeo Ferrer, Jigs & Fixtures (2)
Frank P. Krist, Jigs & Fixtures (2)
John A. Kruger, Machine Shop (2)
Herman C. Kovler, Templates (2)
John E. Lacina, Jig Details & Sub-Assy. (2)
Marco A. Sampogna, Jig Details & Sub-Assy. (2)
Louis M. DeTurris, Indust. Eng. (2)
Robert G. Frampton, Maint-Rearrange. (2)
Edward S. Markowski, Tool Insp. (2)
Robert R. Reed, Parts Paint (3)
Edward J. Fairchild, Details (3)
James J. Carney, Details (3)
Alfred T. Ferguson, Honeycomb Core Details (3)
Thomas B. Cybulski, Honeycomb Prep. (3)
Nicholas T. Vinciguerra, Tool Maint 7 Repair (3)
Richard W. Krug, Maint-Rearrange. (3)
Elwood Brown, Maint. Wast. Dispos & Grond. (3)
Manfred H. Brandt, Matl. Review Eng. (3)
Horst Rieckmann, Flt. Ops. (4)
James E. Urban, Flt. Avionics (4)
Leroy T. Kester, Mech. Struct. & Proto. (5)
Richard M. Baril, Final Assy. Struct. (5)
James V. Montalto, Supp. Equip. Prod. (5)
Warren E. Schaller, Model Shop (5)
Raymond J. Beauchesne, Model Shop (5)

(Continued on page 10)

W. Tauby | T. Ervolina | F. Overcash | P. Henton | R. Meyer | E. Stiehle | J. Ruggiero Jr. | D. Kaley | C. Cava

M. Mastrogiacomo | F. Greenfield | M. Cohen | G. Kipin | J. Philbin | J. Wollstadt | R. Mierzejewski | D. Casey | T. Rothwell

W. Reis | C. Errig | J. Kingfield | R. Severa | D. Webber | F. Fonte | B. Stobie | A. Pinker | R. McKeever

milestones

(Continued from page 9)

Harold S. Durfee, Office Mgmt. (5)
Frank A. Christina, Struct. Des. (5)
Patricia E. Andriani, Fin. Op/Secret. (5)
Patsy J. Muscolo, Corp. Instr. Ground Test (5)
William D. Rooney, Resources M/S (5)
Gerard Berni, EF111 Sys. Inst. & TST-DA (6)
Richard Barlow, Ordnance (6)
Huwelett B. Collins, Prod. M/S (6)
Robert A. Jenkins, Matl. Ops. (6)
Andrew Guszack, Assy. Methods & Plnng. (6)
Peter DeVita, Final Assy. Insp. (6)
Leonard S. Fisenne, Corp. Instr. Sys. (7)
Antonio Tenreiro, Corp. Instr. Ops & Projs. (7)
Arthur D. Gustavson, RF Equip. Prod. Supp. (7)
Harold E. Jacobson, Elect/Elect PRD Supp. (7)
Harold A. Bell Jr., Sys. Test (9)
Richard J. Eberl, Weight Optim & Tech. Dev. (9)
Robert R. Reisert, Maint-Rearrange. (12)
Elwood M. Preston, Maint-Facil. Equip & Gen. (12)
Anthony F. DeSantis, Maint. Indust. Cntrl. (12)
Albert L. Flescher, Adv. Matl & Process Dev. (12)
Paul N. Lovasz, Camera Graphics (15)
Clifford A. Wing, ILS Tech. Illus. (15)
Jonathan Simmons, ILS Tech. Illus. (15)
William P. Curley, ILS Tech. Illus. (15)
Patrick Hughes, ILS Tech. Illus. (15)
Robert F. Ludwig, ILS Tech. Illus. (15)
Frank Toro, ILS Tech. Illus. (15)
Alfred V. Curcio, ILS Tech. Illus. (15)
Edward M. Rudinsky, Plt. Protection (18)
Peter J. Sinatra, Plt. Protection (18)
Rudolph J. Pirozzi, Insp. Mach. Parts-Field (24)
Vincent A. Christina, Struct. Des. (25)
Henry L. Pallmeyer, Struct. Des. (25)
Robert E. Flanagan, Prog. Contracts (25)
Jerome Goldmacher, Prog. Mgt. Space (25)
John E. Hoar, Reqts. Plnng. (30)
Kurt Sand, Mach. Parts/Matl. (30)
Ronald M. Swass, Mach. Parts/Matl. (30)
George W. Galley, Gen. Commod. (30)
Edward J. Vaccaro, Subcontractor Surveil. (30)
Wesley G. Oglesby, Fin. Dept. (30)
John J. Rochfort, Fin. & Reg. Reports (30)
Erma R. Haney, Invoice Audit (30)
Edwin L. Soper, Audit Liaison (30)
Martin J. Zenk, Chem. Eng. (30)
Richard T. Firth, Supplier Cntrl. (30)
John J. Schneider, ILS Mech. Equip. Eng. (35)
David B. Hershowitz, ILS Sys. Concepts (35)
Ronald J. Lazarto, ILS Equip. Des. Eng. (35)
Michael Avena, Qual. Eng. (35)
Ray B. Bailey, Instruct/Anal. (39)
James J. Cuccaro, Electromech. Des. (40)
George A. Singlemann, Config. Data Mgmt. (40)
Frank Fronzo, Avionics Sys. Test-Temp. (43)
William R. Kopack, Reqts. Plnng. (43)
Erasmus J. D'Agostino, Elect. Cable Fab-Temp. (44)
Martin P. Koop, Receiving Insp. (44)
Joseph F. Ciechanowski, Boeing Fin. Assy. (77)
Harvey M. Jordan Jr., Prototype/Detail Parts (77)
William J. Bolton, Dassault (77)
Lawrence J. Phippard, Production (280)
John G. Estock Jr., Supp. Sys-Other Plts. (280)
Robert J. Albrecht, Cont. Main SVC-Other Plts. (521)
Patrick N. Johnson, Struct. Test (563)

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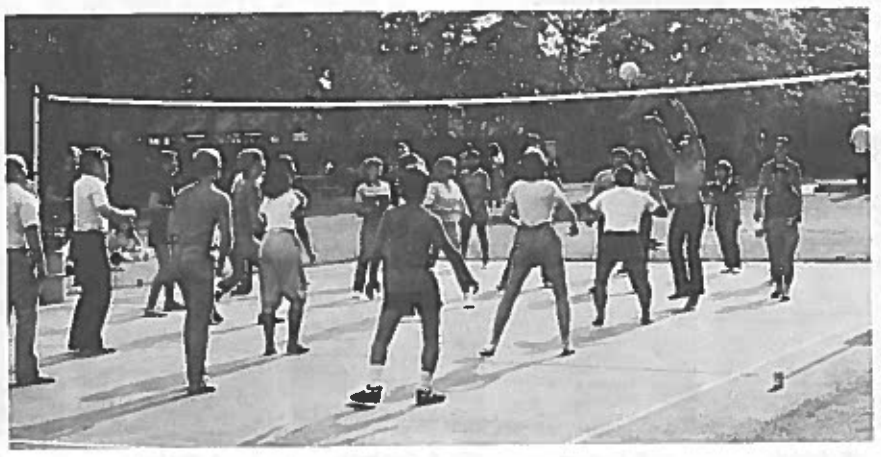
Vincent F. Marconi, Sub. Assy. (1)
Philip Bevelacqua, Mfg. Sys/Doc. (2)
Michael B. Lyons, Manufact. Budgets (3)
Ronald L. Stonehouse, Air Traf & Radio Comm. (4)
Robert F. Kimmerle, Presentations Servs. (5)
Bohdan A. Podoliuk, Veh. Struct. Anal. (5)
James E. O'Neill, Ops. Anal. (5)
Robert M. Tucker, Maint-Rearrange. (6)
Edwin F. Fickeissen Jr., Flt. Dev. Ops. (7)
Leon Cochran, B/P Warehouses (21)
Joseph J. Rosenzveig, Prog. Procure Trainer Sys. (25)
Walter Johnston Jr., ILS RF/Servo/Elec TPS Eng. (25)
Vernon Viola, ILS Equip. Des. Eng. (25)
John F. Betsch, Eng. Admin. M/S (35)
Ronald B. Lewan, PPO-A6 & EW Progs. (40)
Frederick V. Pellechia, ILS Sub-Sys. Eng. (40)
Philip Winson, Sys. Des. (40)
Marie L. Bennett, Invent. Mgt. (44)
Virgil S. Wilson, Mgmt & Staff (56)
Charles A. Hammerstein, Machine Shop (56)
Joseph A. Tapaszi, Qual. Cntrl. (77)
Richard J. Tricarico, Fuselage Assy. (77)
Joann L. Brady, Paymaster (111)
Wilfried R. Kappus, Cont. Main SVC-Other Plts. (275)
James W. Barcus Jr., GSFC Eng. Ops. (284)

A summer blast

The Summer Employee's Picnic had its usual success as more than 200 summer-employed college students turned out for the annual event on July 6. Everyone had a good time, and the only "complaint" was that there is only one picnic each summer. "You come and meet everybody once and then you never see them again," was the way one student phrased it. Elaine Sison, the coordinator of the picnic for the past two years, hopes "there will be two picnics next year, one at the beginning of the summer, and another towards the end."



scorecard

Keglers needed

Though the bowling season is still several weeks away from opening day, plans are now underway. There are openings in the following leagues for new bowlers.

Teams consisting of two male and two female bowlers are being formed for the Gold Mixed league. The new season starts Wednesday, September 7 at County Line Bowl in Farmingdale at 6:30 p.m. Contact Gene Harms, Ext. 6854 or John Klaus, Ext. 115-6034.

The Nite Owls league is looking for players. The league meets on Thursday nights at 1 a.m. Interested? Call Sam Laffredo, Ext. 2296; Bill Gilberson, Ext. 7309; or Frank Azzarello, Ext. 3066.

A bowler is needed this upcoming season for the Patchogue Mixed league which meets Tuesday evenings at 6:40 p.m. Contact Gene Burgess, Ext. 6420 or Ken Becker, Ext. 117-6638.

The Outpost league is looking for bowlers/teams for the 1983-84 season. Outpost action takes place on Tuesdays at 5:15 p.m. at the Jericho Lanes. If you are interested, call Vic Bonanno, Ext. 115-6098.

Cycling trek

Last month, three members of the Grumman Cycling Club biked 329 miles from Washington D.C. to Merrick, L.I. Bob Kerschbaum, Lou Pastore and Charlie Hefner began what Charlie called the "geriatric trip" (all three men are over 50 yrs. old) on June 10 at 10:00 a.m. near the Lincoln Memorial.

Although temperatures were up in the nineties, Bob, Lou and Charlie kept on schedule and on course, averaging 65 miles a day and reaching their destination in the scheduled five days.

As members of the 25-person club, they ride each weekend on trips that range from 50 to 70 miles. Bob also rides to and from work (he lives in Farmingdale) each day.

Cool sport

Sharpen your ice skates. That's right, your skates, because the Grumman varsity hockey team is taking to the ice and they're looking for some budding Bobby Nystroms to wear the Grumman Blue.

Tryouts are going to be held at Cantiague Park in Hicksville on Friday, August 19 and Monday, August 29. The team has ice time from 11 p.m. until 1 a.m. both nights.

If you want to make the Tomcats, who are entering their second season of competition, you must get to at least one of these tryouts. There is a $10 per player fee for each of the two-hour sessions.

Contact captain Jim Allen, Ext. 4501, or coach Don White, Ext. 0734, if you'd like more info about tryouts or if you'd like to volunteer your services to help the team in some other capacity.

330 miles to go. *Charlie Hefner (L), Lou Pastore and Bob Kerschbaum (R) get set to begin their 330-mile bicycle trip from Washington D.C. to Long Island.*

Bowling Carnival

Want to have a little fun and maybe win a few prizes? Come to Recreation's Bowling Carnival on Sunday, August 21 at 1 p.m. at Sheridan Lanes in Mineola.

The cost is $6 per person for three games of bowling and you must make payment by August 19. You can do that by going to Recreation, Plant 28A, or calling for additional information on Ext. 2133.

First golf outing

Grummanites at Plant 71 in Irvine, California, held their first Irvine Invitational Golf Tournament recently. Over 70 people — including city officials and business associates of Grumman — played the Irvine Coast Country Club course and later listened to guest speaker Mike Guman of the L.A. Rams.

Mike Bennett was the only Grummanite to win a first prize; he took the longest drive competition.

Way to the Nationals

The Grumman women's varsity softball team has moved into a tie for second place in the Wesco Sports Softball Association League.

The team, led by first-year manager Al Grillo, boasts a 9-2 record. Its only losses were to the league-leading Whitestone team.

The team's first big goal, however, is to win the Metro-Long Island Industrial championships (held last weekend at Cantiague Park in Hicksville, Long Island). A win there will guarantee the team a slot in the women's industrial nationals slated for Tulsa, Oklahoma on Labor Day.

"Defensively, we're starting to come around," says Grillo. A few clutch hits could turn the team into national champions. "We are getting nine or 10 hits a game," he explains. "We're just not putting them together yet.

"If we play the kind of ball we're capable of playing, we should win it."

Leading the team in that direction is Bonnie Dressler. She's hitting a remarkable .631 and Pat Davis is hitting safely at a .608 clip. Nancy Bradley and Ann Viscount are both averaging better than .500 on a team that's hitting .398.

Frankly speaking

John Zolezzi got all the credit — including his name on the trophies — for a hole-in-one he didn't hit on June 10 at Pine Hills C.C. That was unfortunate for Frank Zolezzi. He was the one who hit that perfect shot.

Sign up now for autumn tourneys

September is a big month for those of you who play handball, paddleball or horseshoes. Tournaments to find the best practitioners of those three sports begin on Monday, September 19.

Bethpage Community Park is the site of the handball and paddleball tourneys. Horseshoes will be pitched in the pits on the north side of Plant 3.

There'll be separate tournaments in all three sports for the folks at Calverton and Great River.

To sign up, fill out the form on this page and send it to Grumman Recreation, Mail Stop A01-28A, no later than September 9th.

Autumn tournaments

- ☐ Horseshoe — single
- ☐ Horseshoe — doubles
- ☐ Handball — single
- ☐ Handball — doubles
- ☐ Paddleball — doubles

Name .....

M/S ..... Ext. .....

Partner .....

M/S ..... Ext. .....

Mail to Recreation, A-01-28A, to arrive by Sept. 9th

From flipping burgers to fusion energy

Hill, Montana get inside view of engineering

For college students Roy Montana and Blaine Hill, working in Grumman's Summer Employee Program has been more than "just a summer job."

While last year at this time they were filing paperwork and flipping hamburgers respectively, Roy and Blaine are presently working for Advanced Energy Systems in the Research Lab. They are undertaking full-time engineering tasks that are very much related to their fields of study.

Roy will be a senior at The State University of New York at Stony Brook. He is creating a computer program that will control the valves on a cryo-pump, which is used in fusion-reactor research. The program is being designed for Lawrence Livermore National Laboratories.

An electrical engineering major, Roy has had one course in computer science, which was in FORTRAN. "This program is in basic and assembly (languages), which I really didn't know anything about," says Roy. But after reading literature on the subject and discussing the specifications of his assignment with his supervisor Nick Szuchy (an electrical engineer) Roy has invented a system in which the 16 valves on the pump can be programmed to open or close in any combination and order.

The college senior is also working on a robotic arm that will perform remote maintenance work on fusion devices that a person cannot do once the reactor becomes even mildly radioactive.

"This is pretty much what I'll be doing when I graduate," he says. "I'll get a specifications sheet that tells me what's needed and I'll have to design a system to meet the requirements."

Blaine, a physics/computer science major soon to be a junior at Adelphi University, is working on a project for Princeton Plasma Physics Laboratories. Also under the supervision of Nick Szuchy, he is working with fiber optics to invent a device that will measure and indicate strain on Princeton's Tokamak, a reactor used in fusion experimentation.

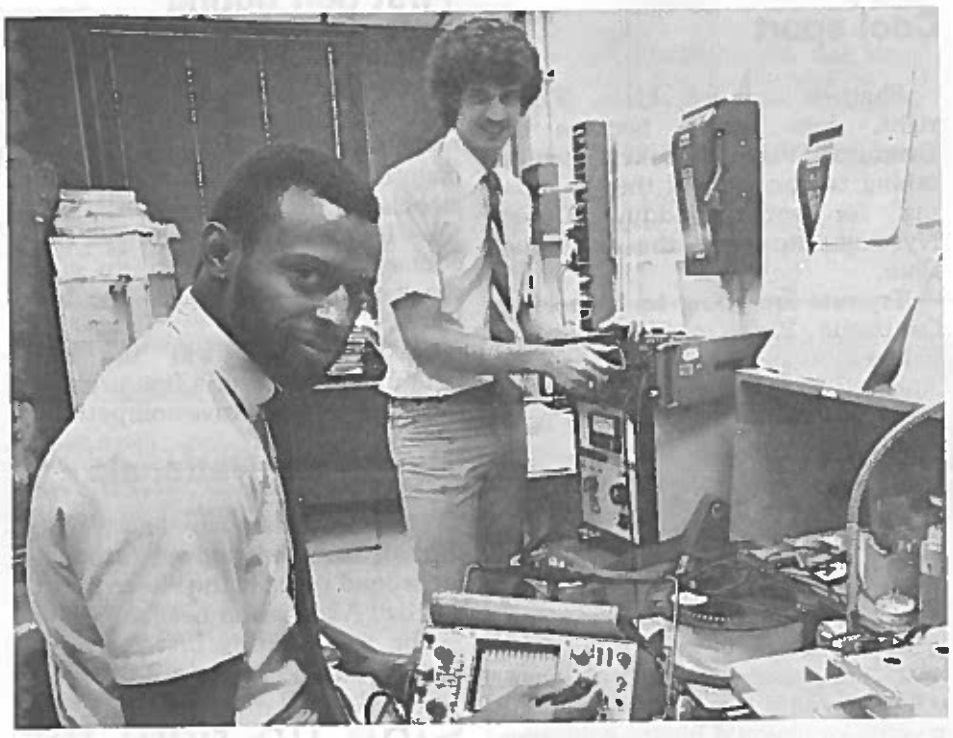
The Tokamak uses fusion — the joining of atoms, rather than fission — the separating of atoms. Fission is the method used in such reactors as the ones on Three-Mile-Island and at Shoreham. The advantage of creating energy with fusion (which experts foresee in the next 20 to 40 years) is that there is no danger of explosion should there be a malfunction in the reactor.

Using fiber optics instead of metal wiring, Blaine can detect stress on the reactor even when certain of the components of it are subjected to electromagnetic interference areas. Since it is made of glass, fiber optics is immune to this type of interference.

Although originally a computer science major, Blaine has recently decided to pursue physics. "When I think about great people like Newton and Einstein, it makes me feel really good," he said.

Both men said they have been interested in physics and other science fields since high school. "I was always playing with radios and taking apart the toaster," comments Roy.

Their supervisor Nick Szuchy has been very pleased with their work. "I find them both refreshing. Their work is real and they are motivated and able to do it. They both have excellent potential," he says. In mid-August, the three of them will go to Princeton to install the stress device on the Tokamak.



Lab credits. *Summer hires Blaine Hill (foreground) and Roy Montana work in Grumman's Research Lab; these temporary employees are doing permanent work for fusion research.*

Roy Montana's father is Roy Montana; general manager — Manufacturing in Plant 2. Irene Hill, Blaine's mother, is a secretarial aide in Grumman Corporation. The Summer Employee Program was established for dependents of Grumman employees who are attending college on a full-time basis. In the summer of 1983, 651 such students were employed by Grumman. It is attempted — although not always possible — to employ students in areas that are related to the fields they are pursuing in school.

This Plane News article was written by Leslie Hurley, daughter of Bruce Hurley who works in Quality Engineering in Plant 35. Leslie is entering her junior year at The State University of New York — Purchase. She is studying literature/languages with a minor in journalism.

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